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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/151,115	09/10/1998	THOMAS A. GLYNN	10576/1	7311

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EXAMINER
CONNELLY CUSHWA, MICHELLE R

ART UNIT	PAPER NUMBER
2874	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/151,115	GLYNN, THOMAS A.	
	Examiner	Art Unit	
	Michelle R. Connelly-Cushwa	2874	

-- The MAILING DATE of this communication appears on th cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) *15-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-32* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 September 1998* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-14, drawn to a telecommunications fiber optic infrastructure, classified in class 385, subclass 135.

II. Claims 15-27, drawn to a method for deploying a telecommunications fiber optic infrastructure, classified in class 385, subclass 147.

III. Claims 28-30, drawn to a method for deploying and managing a telecommunications fiber optic infrastructure, classified in class 385, subclass 147.

IV. Claims 31 and 32, drawn to a method for prefabrication a cable, classified in class 385, subclass 95.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as being deployed without the step of grooming.

Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process as claimed can be practiced with another materially different product such as any known optical fiber distribution frame.

Inventions I and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions, different modes of operation, and different effects. Invention I is defines a fiber optic infrastructure and Invention IV defines a method for prefabricating a cable.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation. The method of invention II comprises different steps than the method of invention III.

Inventions II and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different

functions, and different effects. Invention II is a method for deploying a fiber optic infrastructure and Invention IV is a method for prefabricating a cable.

Inventions III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, and different effects. Invention III is a method for deploying and managing a fiber optic infrastructure and Invention IV is a method for prefabricating a cable.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Robert F. Perry on May 16, 2002 a provisional election was made without traverse to prosecute the invention of I, claims 1-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-32 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not state whether the invention is a sole or joint invention of the invention claimed.

Drawings

Twenty-seven (27) sheets of formal drawings were filed on September 10, 1998 and are accepted by the Examiner.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-5, 7, 9-11, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Vidacovich et al. (US 5,402,515).

Regarding claim 1; Figures 1, 2 and 7 of Vidacovich et al. disclose a fiber optic infrastructure comprising a frame (12); and modules (14) having outside portions, inside portions, cable ports (50), and a plurality of inside mounting positions (24), each of which are in a designated state of equipped, unequipped or spare. The fiber optic infrastructure disclosed by Vidacovich et al. is inherently capable of connecting remote equipment to central office equipment, (see column 6, lines 28-32). A connection from the outside portion to the inside portion of the modules (14) must inherently be made to an inside mounting position in an equipped state for a telecommunications signal to be transmitted and/or received over that connection.

Regarding claim 2; equipment is inherently coupled to the outside portion of the module (14) via the cable port (50).

Regarding claims 3-5; the modules (14) are contained within a plurality of equipment bays, which are aligned in parallel rows that are perpendicular to a side of the fiber center distributing frame (12), and are contained in the fiber distributing frame (12) (see the abstract and Figure 7).

Regarding claim 7; Vidacovich et al. discloses fiber cable pathways connecting the two parallel rows of standard equipment bays in the fiber distribution frame (12) in Figure 7.

Regarding claim 9; Vidacovich et al. discloses that a standard jumper connects at least one piece of equipment to an equipment bay connector, the equipment bay connector located within an equipment bay and corresponding to an inside mounting position on which the equipment is located and that the equipment cables are coupled

using interconnects between the equipment bay connectors and the outside portions (see the abstract; column 2, lines 60-30; column 4, line 1, through column 6, line 63; and Figures 1-7).

Regarding claim 10; the cables are deployed along fiber cable pathways in the invention of Vidacovich et al. (see the Figures).

Regarding claim 11; the equipment cables comprise a first section having a length to reach a farthest connector on the outside portion; a second section having a length that spans a distance from the frame (12) to an equipment bay benchmark; and a third section having a length that spans from the equipment bay benchmark to the equipment bay connector/inside mounting position in the invention of Vidacovich et al. for the connections to be made.

Regarding claim 13; the first section may further comprise a plurality of splice standard length fiber jumpers (see the abstract).

Regarding claim 14; the ratio of outside portion termination connections to inside portion termination connection is less than 1 to 1 in the invention of Vidacovich et al.

Claims 1-8 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Anton et al. (US RE 37,489 E).

Regarding claims 1 and 3; Figures 1, 4, 8, 9 and 10 of Anton et al. disclose a fiber optic infrastructure including a frame (10); a plurality of standard equipment bays; and modules (16) having outside portions, inside portions, cable ports (88 and 90), and a plurality of inside mounting positions (96), each of which are in a designated state of equipped, unequipped or spare; wherein the modules are placed inside of the standard

equipment bays. The fiber optic infrastructure disclosed by Anton et al. is inherently capable of connecting remote equipment to central office equipment. A connection from the outside portion to the inside portion of the modules (16) must inherently be made to an inside mounting position in an equipped state for a telecommunications signal to be transmitted and/or received over that connection.

Regarding claim 2; equipment is coupled to the outside portion using an interconnect in the invention of Anton et al.

Regarding claims 3-6; the standard equipment bays are aligned in parallel rows substantially perpendicular to a side of the frame (10); two of the parallel rows of standard equipment bays are proximately located to one fiber distributing frame (10); and two of the parallel rows of standard equipment bays are proximately located to two fiber distributing frames (10) in the invention of Anton et al. (see Figure 1).

Regarding claims 7 and 8; fiber cable pathways (60, 62, 72) connect the parallel rows of the standard equipment bays to the frames (10).

Regarding claim 14; a ratio of outside portion termination connections to inside portion termination connections is less than 1 to 1 in the invention of Anton et al.

Claims 1-5, 7, 9-11, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ghandeharizadeh et al. (US 5,490,229).

Regarding claims 1-5; Figures 1 and 2 of Ghandeharizadeh et al. disclose a fiber optic infrastructure comprising a frame (10); a plurality of standard equipment bays (11, 14); a plurality of modules (20) placed within the equipment bays and having an outside portion, an inside portion, cable ports, and a plurality of inside mounting positions (34);

wherein equipment is connected to the outside portion through a cable port (50) using an interconnect; wherein each inside mounting position is in a designated state selected from a group of operating states; wherein a connection from the outside portion to the inside portion is made to one a plurality of mounting positions; wherein the equipment bays (11, 14) are aligned in parallel rows substantially perpendicular to a side of the frame (10) and the inside mounting positions (34) are contained within the standard equipment bays (11, 14); and wherein two of the parallel rows of standard equipment bays are proximately located to one frame (10).

Regarding claim 7; a fiber cable pathway connects the two parallel rows of standard equipment bays (11, 14) to the frame (10), (see Figure 1).

Regarding claim 9; in column 2, line 20, through column 3, line 12, Ghandeharizadeh et al. discloses that a standard jumper connects the at least one central office equipment to an equipment bay connector, the equipment bay connector being proximately located to an equipment bay corresponding to an inside mounting position on which the at least one central office equipment is located; and that an equipment cable is coupled between the equipment bay connector and the outside portion using an interconnect.

Regarding claim 10; the equipment cable is deployed along a fiber cable pathway in the invention of Ghandeharizadeh et al.

Regarding claim 11; the equipment cable comprising a first section having a length to reach a farthest connector of the outside portion; a second section having a length that spans a distance from the frame to an equipment bay benchmark; and a

third section having a length that spans from the equipment bay benchmark to the equipment bay connector in the invention of Ghandeharizadeh et al.

Regarding claim 13; in column 2, line 20, through column 3, line 12, Ghandeharizadeh et al. discloses that the first section may comprise a plurality of spliced fiber jumpers.

Regarding claim 14; the ratio of outside portion termination connections to inside portion termination connections is less than 1 to 1 in the invention of Ghandeharizadeh et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vidacovich et al. (US 5,402,515).

Regarding claim 6; Vidacovich et al. discloses all of the limitations of claim 6 as applied to claim 1, except for specifically stating that two parallel rows of equipment bays are proximately located to two fiber distributing frames. One of ordinary skill in the art would have found it obvious to place three or more distribution frames (12) side by side in the invention of Vidacovich et al. to accommodate more connections, as this is very elementary in the art. Thus, one of ordinary skill in the art would have found it

obvious to have two parallel rows of equipment bays be proximately located to two fiber distributing frames.

Regarding claim 8; a fiber cable pathway that connects two parallel rows of equipment bays is inherently located between two fiber distributing frames, when the frames are placed side by side in the invention of Vidacovich et al.

Regarding claim 12; Vidacovich et al. discloses all of the limitations of claim 12 as applied to claim 11, except for the cable including at least one reference mark to facilitate deploying the cable along the fiber cable pathway. The practice of using reference marks on cables to facilitate deployment of the cables is well known and very elementary in the art. Therefore, one of ordinary skill in the art would have found it obvious to incorporate reference marks on fiber cable to facilitate deployment of the cable and allow the cable to be properly placed within any distribution frame.

Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anton et al. (US RE37,489 E).

Regarding claim 9; Anton et al. discloses all of the limitations of claim 9 as applied to claim 3, except for a jumper connecting the equipment to an equipment bay connector. The equipment bay connector is proximately located to an equipment bay corresponding to an inside mounting position on which the equipment is located and the equipment cable is coupled to the equipment bay connector/inside mounting portion and the outside portion using an interconnect in the invention of Anton et al. One of ordinary skill in the art would have found it obvious to connect central office equipment to the

equipment bay connector/inside mounting position with a jumper, since jumpers are well known, commonly used, and very elementary in the art.

Regarding claim 10; the cables are deployed along fiber cable pathways in the invention of Anton et al.

Regarding claim 11; the cables comprise a first section having a length to reach a farthest connector on the outside portion; a second section that spans a distance from the frame to an equipment bay benchmark; and a third section that spans from the equipment bay benchmark to the equipment bay connector in the invention of Anton et al.

Regarding claim 12; Anton et al. discloses all of the limitations of claim 12 as applied to claim 11, except for the cable including at least one reference mark to facilitate deploying the cable along the fiber cable pathway. The practice of using reference marks on cables to facilitate deployment of the cables is well known and very elementary in the art. Therefore, one of ordinary skill in the art would have found it obvious to incorporate reference marks on fiber cable to facilitate deployment of the cables and allow the cable to be properly placed within any distribution frame.

Regarding claim 13; One of ordinary skill in the art would have found it an obvious design choice to have the first section of cable connecting to an outside portion of the invention of Anton et al. comprise of a plurality of spliced jumpers, as this is very elementary in the art.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ghandeharizadeh et al. (US 5,490,229).

Regarding claim 12; Ghandeharizadeh et al. discloses all of the limitations of claim 12 as applied to claim 11, except for the cable including at least one reference mark to facilitate deploying the cable along the fiber cable pathway. The practice of using reference marks on cables to facilitate deployment of the cables is well known and very elementary in the art. Therefore, one of ordinary skill in the art would have found it obvious to incorporate reference marks on fiber cable to facilitate deployment of the cables and allow the cable to be properly placed within any distribution frame.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Strause et al. (US 6,061,492) teaches that optical fiber distribution frames are commonly used to connect central office equipment to remote equipment and that jumpers are usually interposed between a feeder cable and a distribution cable to allow for reconfiguration (see column 1, lines 10-40).

Wheeler (US 5,497,444) discloses a fiber distribution frame (10) including a bays (26) containing modules, ports (110, 112) for receiving cables, and inside mounting positions (90) for connecting cables. In column 1, lines 38-41, Wheeler teaches the use of jumper cables for cross-connecting pieces of optical equipment.

Thompson et al. (US 6,160,946) discloses a fiber distribution apparatus including a frame (22), equipment bays for receiving connection modules (23, 24); the connection modules including cable ports (112) and inside mounting locations (91).

Kawa (US 4,502,754); Lauriello et al. (US 4,630,886); George et al. (US 4,818,054); Petrunia (US 5,129,030); Czosnowski et al. (US 5,353,367); Henson et al. (US 5,420,958); Janus et al. (US 5,689,604); Larson et al. (US 5,701,380); Abel et al. (US 5,987,203); and Finzel et al. (DE 43 01 421 A1) each discloses optical fiber infrastructures/distribution frames of prior art.

Any inquiry concerning the merits of this communication should be directed to Examiner Michelle R. Connelly-Cushwa at telephone number (703) 305-5327. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (703) 308-0956 or to the technical support staff supervisor at telephone number (703) 308-3072.

Michelle R. Connelly-Cushwa
MRCC
May 23, 2002

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